



PAKISTAN  
MSCC 2000



# IC Reconnaissance and Surveillance Gaps

OMAN

INDIA

*Arabian Sea*

Capt Jim Parsons





# Overview



- Vision Statement
- Operational Processes
- Gaps



# Vision Statement



- Strategic Plan for USPACOM TC Forecasting and Warning System
  - TC Reconnaissance and Surveillance:  
“Provide the typhoon forecaster, and numerical prediction models, with the most accurate, timely, and reliable diagnosis of tropical cyclone structure and the surrounding environment.”



# Vision Statement

- Apply Vision into nine key result areas
    - Data Collection
    - Analysis
    - Forecast
    - Tailored Applications
    - Dissemination/Communication
    - Technology
    - JT Organization/Personnel
    - Training
    - Feedback
- Operational Processes
- Supporting Areas





# Operational Processes



- Primarily Two Operational Processes Apply:

Data Collection and Analysis

## 1. Data Collection. Overall Objective:

Increase the type, quality, and quantity of value added in-situ and **remotely sensed** data to exploit traditional and non-traditional data for METOC applications.



# Operational Processes Data Collection (cont'd)



- MGUSPACOM GOALS:
  1. Identify and prioritize reconnaissance and surveillance deficiencies and requirements.
  2. Leverage and exploit international sources.
  3. Cost effective.



# Operational Processes Analysis



- Primarily Two Operational Processes Apply:

Data Collection and Analysis

## 2. Analysis. Overall Objective:

Ensure high fidelity analysis of the atmosphere as it relates to TC forecasting.





# Current Operations Gaps

## (per Strategic Plan; Appendix B)



- Data ("A" priority)
  - TC Structure/Position/Intensity/Wind Fields
    - SSMI/TRMM/VIRS/RADAR/SCATT/UW-CIMSS Cloud Track Winds & Shear
    - ODT Implementation
    - AMSU
  - Timeliness
    - SSMI/TRMM, QuikSCAT, MET-5
- Process / Interpretation
  - Satellite Network
    - M4BP<sup>3</sup>I (Andersen, Kadena, Hickam, Elmendorf & Lajes)
    - Yongsan RADAR only
    - Enhanced KWBC/CPHC/AFWA Coordination
  - Manpower
    - M4BP<sup>3</sup>I billets (RODN/PHIK)
  - Hardware/software
    - SIDAS, M4BP<sup>3</sup>I, NSDS-E, & T1 lines





# Current Operations Gaps (per Strategic Plan; Appendix B)



- **Process / Interpretation (cont'd)**
  - Training
    - Internal program
    - Training websites (JTWC, NRL, CIMSS)
    - MSC Conference training
      - CPHC/Network sites
- **Exploitation**
  - R&D focus on the operator
    - Implementation of IR ODT
    - PMW intensity standard (ODT)
    - Scatt rain sensitivities
    - Doppler surface wind speed extrapolation
    - Update Dvorak procedures
    - AMSU Intensities ( $T_B$ )
  - Improve coordination with research community
- **Other**
  - Data fusion platforms: ATCF/OPSII (SIDAS)



# Summary



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- Operational Processes
- Gaps